

Patent No. 5,091,449) or Dressler et al. (U.S. Patent No. 5,244,725). Applicants respectfully traverse this rejection.

According to the Office Action, the Paul patent shows vulcanizable rubber compositions based on the instantly claimed rubber as well as the instantly claimed hydroxydiphenyl amine. The Paul patent is silent as to the specific incorporation of a methylene donor, the missing teaching allegedly supplied by the Dressler and Cantillo patents. According to the Examiner, it would have been obvious to add the methylene donors of Dressler and Cantillo to the composition of Paul. Applicants respectfully disagree with these assertions.

First, the Paul patent exclusively covers alkenyl-substituted hydroxydiphenyl amines. In contrast, the claimed invention covers substituted or unsubstituted 3-hydroxyphenyl amine, where suitable substitutions include only the C1-C6 alkyl substituents, or an additional OH group on the phenyl ring. Suitable substitution moieties are described in the specification on page 4 at lines 27-29. The substituted hydroxyphenyl amines of the present invention cannot be considered to be similar to the materials of Paul because of the activity and functionality of the alkenyl group, particularly in a rubber composition, where sulfur cross-linking occurs during vulcanization.

Secondly, the teaching of the Paul patent is completely unrelated to the present invention; the material of Paul is added to rubber as an antioxidant. In contrast, the 3-hydroxydiphenyl amine of the present invention is not an antioxidant, but a methylene acceptor in a two-part methylene acceptor/methylene donor system. The antioxidant of Paul cannot react with a methylene donor, as none is present in that composition. This is understandable, since an antioxidant is not intended as a methylene acceptor. The Paul material may react with the sulfur in the rubber compound during vulcanization, but this is a completely different reaction than the methylene donor/acceptor reaction. It is the addition of the specific and novel 3-hydroxydiphenyl amine as a methylene acceptor that is the subject of the present invention.

The Cantillo patent teaches the use of a nitron compound as a methylene acceptor. This, too, is completely unrelated to the 3-hydroxydiphenyl amine of the present invention. Similarly, the Dressler patent teaches the use of an epoxy ether resin. Neither

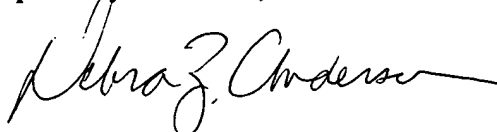
of these patents disclose, teach or suggest the use of the 3-hydroxydiphenyl amine of the present invention as a methylene acceptor.

As none of the references cited teach or suggest the use of the 3-hydroxydiphenyl amine as a methylene acceptor, they cannot be combined to produce this result. Applicants respectfully submit that the present invention is not obvious in view of the references cited and requests withdrawal of this basis of rejection.

SUMMARY

In view of the above remarks, it is respectfully submitted that Claims 1-15 are patentable over the art of record; a Notice of Allowance is respectfully requested at an early date.

Respectfully submitted,



Debra Z. Anderson
Registration No. 44,506
Attorney for Applicant
412.566.1910

RECEIVED
JUL 29 2002
OFFICE OF PETITIONS